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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,514

06/26/2003

Daniel A. Wilson

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EXAMINER

GRAY, JILL M

ART UNIT

PAPER NUMBER

1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/607,514

Applicant(s)

WILSON ET AL.

Examiner

Jill M. Gray

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on October 26, 2006, PROSECUTION IS HEREBY REOPENED. A rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

The rejection of claims 29-50 under 35 U.S.C. 102(e) as anticipated by Szum 6,240,230 B1 is withdrawn in view of applicants' arguments set forth in the Appeal Brief.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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3. Claims 29-32 and 39-48 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a radiation cured encapsulating material having the claimed critical properties and being formed from a composition as described specifically in Examples 1 and 2, does not reasonably provide enablement for a radiation cured encapsulating material having the claimed critical properties and being formed from a composition comprising from about 30 to about 80 wt% of polyether-based urethane acrylate oligomer, from about 1 to about 40 wt% of isocyanurate monomer and an effective amount of a photoinitiator for radiation curing. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. In particular, there are two Examples in the specification that disclose compositions of the instant invention resulting in the claimed critical properties. One composition is where the urethane acrylate is present in amounts of 75.1 parts by weight, with the isocyanurate monomer present in an amount of 20.4 parts by weight and the second composition being where the urethane acrylate is present in an amount of 61.5 parts by weight, and the isocyanurate monomer is present in an amount 28 parts by weight. The specification is not enabling for a composition wherein the urethane acrylate is present in amounts of about 30 wt%, nor is the specification enabling for a composition wherein the isocyanurate monomer is present in amounts of about 1 wt%, (nor a composition comprising each of the aforementioned component in the referenced amount,) as claimed in the present claims, whereby said amounts would result in a cured material having the tear resistance, adhesion force, Young's modulus and percent

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elongation at break as claimed. There is no evidence on this record that a composition within applicants broadly claimed range would result in a cured encapsulating material with the instant claimed properties of claim 29.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 29-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szum 6,240,230 B1, essentially for reasons of record.

Szum teaches a radiation cured material comprising about 20 wt% to about 80 wt% of a polyether based urethane acrylate oligomer, about 20 wt% to about 80 wt% of a monomer diluent and an effective amount of a photoinitiator, as required by claims 33, 36, and 37. The polyether based urethane acrylate oligomer can be polypropylene glycol based urethane acrylate oligomer and the monomer diluent can be trishydroxyethyl isocyanurate, as required by claims 34-35 and 38. See column 3, lines 7-15, column 4, lines 27-30, column 5, line 2, and column 8, lines 39-43. In addition, Szum teaches that the composition can have a viscosity reducing component, per claim 49 and a component that affects the friction of the composition, per claim 50. See column 7, lines 39-42 and column 13, lines 29-34. The cured material can have an elongation at break within applicants' claimed range. Note Examples 1 and 3.

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Moreover, Szum teaches that proper modulus is important and can be tailored for different utilities as when the compositions serve as secondary coatings, tertiary coatings, bundling or matrix materials. See column 13, lines 56-66. Regarding claims 29-32 and 39-48, the composition taught by Szum is substantially the same as that claimed by applicants. Accordingly, the examiner has reason to believe that properties such as tear resistance, adhesion force, modulus and elongation at break are the same or similar to those contemplated by applicants, in the absence of factual evidence to the contrary. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicants disclose and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

More specifically, the subject matter defined by the invention of claim 29 cannot be separated from the limitations set forth in claim 33, since the subject matter of the invention of claim 29, when read in light of the specification, includes a radiation curable composition as described in claim 33. That being said, it is well established that a *prima facie* case for obviousness of chemical compositions is established if there is structural similarity between claimed and prior art subject matter. *In re Dillion* 16 USPQ2D 1897. The composition of Szum discloses overlapping ranges for the polyether-based urethane acrylate oligomer and isocyanurate monomer of the claimed invention and photoinitiator and thus gives reason or motivation to make the composition as claimed. The fact that Szum is silent to properties such as tear resistance, adhesion force and

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Young's modulus, does not provide evidence of the absence of these properties within the disclosed ranges of his composition, and as claimed by applicants. Additionally, the fact that applicants' claim these properties in their composition does not provide evidence of nonobviousness in a composition that is disclosed in the prior art. The discovery that a claimed composition possesses a property not disclosed for the prior art does not alone defeat a *prima facie* case.

There is no clear factual evidence on this record by way of back-to-back comparison that the composition of the prior art does not have the instant claimed properties. "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicants have the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Applicants argue that the general disclosures of Szum relating to radiation curable compositions do not sufficiently describe applicants' claimed invention to place a person of ordinary skill in the field of the invention in possession of it, particularly since Szum acknowledges that the mechanical properties of the compositions and materials are effected by the selection of the oligomer and by selection of the reactive or monomer diluent, but provides no teaching or suggestion as to the particular selection of components sufficient to provide a composition having the properties recited in claim 29. The examiner disagrees for the reasons previously stated, namely, that Szum teaches a composition having the same components contemplated by applicants present in proportions that overlap with the instant claimed invention. As set forth above, there is no clear factual evidence on this record, by way of back-to-back

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comparison that the composition of the prior art does not have the claimed critical properties.

Applicants further argue that Szum's specific exemplary compositions teach away from cured materials having a combination of properties as recited in claim 29 and does not enable one skilled in the art to make and use a radiation cured encapsulation material having the combination of properties required by claim 29 and therefore does not render the presently claimed materials obvious under 35 U.S.C. 103. The examiner disagrees. In particular, a reference is relied upon for all that it would reasonably convey to one of ordinary skill in the art, and is not limited to that which is described in the Examples. The fact that Szum teaches a composition comprising the same components, which can be used in the same amounts as applicants' would have provided clear direction to the skilled artisan for a composition of the type set forth by applicants. A teaching of the formation of the same type of composition, i.e. radiation curable composition comprising the same components being present in the same/overlapping amounts cannot constitute "teaching away". As to the particular selection of components sufficient to provide a composition having the properties recited in claim 29, it is not clear on this record that the broad composition of claim 33 would necessarily result in a radiation cured material having the properties as required by claim 29.

Applicants argue that while independent claim 29 is not limited to the compositions of Examples 1 and 2 set forth in the present specification, applicants have presented these examples as exemplary of materials exhibiting the properties recited in

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claim 29. It is not clear on this record that a composition having 30 wt% urethane acrylate oligomer, or alternatively, 1 wt% isocyanurate monomer results in a particular selection of components sufficient to provide a composition having the properties recited in claim 29. Applicants' Examples have been fully considered and are not found to be commensurate in scope with the broad composition of claim 33.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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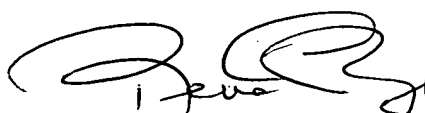
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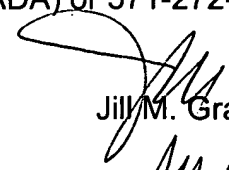
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